

ABSTRACT OF THE DISCLOSURE

An integral motor having a multidimensional shaft to allow a rotary scanner to consistently rotate the cylindrical transparent rotary drum for an optical system to sample the original mounted on the rotary drum. A rotary scanner converts analog data collected from the original to digital information for processing in a computer. The integral motor fixed and supported by two brackets comprises a multidimensional shaft attached to a rotor padded by two bearings inside a shield, a stator attached to inside wall of the shield with ends covered by two bore covers and a magnetic field sensor attached to the stator. The stator, the rotor and the magnetic field sensor of the integral motor, applying direct rotation on the multidimensional shaft, permit precise positioning of the rotary drum.